ABSTRACT

A pretensioner having a pipe containing a plurality of balls which are applied with lubrication coating. A clearance for passage of the balls at a distal end of the pipe is determined by the inner diameter of the pipe, the root circle diameter of the external teeth of the ring gear, and the position of a spool coupled to a pinion. The space for allowing the balls to pass is defined by the inner surface of a straight portion of the pipe and contact portions of the external teeth of the ring gear with the balls. The clearance is set so that the width of the space is smaller than the diameter of the balls.